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09/863,324	05/24/2001	Mitsunori Maruyama		1377

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GEORGE A. LOUD  
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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/863,324

Examiner

Victor S Chang

Applicant(s)

MARUYAMA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5, 6, 8, 9 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 8, 9 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/3/2004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The Examiner has carefully considered Applicants' amendments, remarks and Information Disclosure Sheet (IDS) filed on 2/3/2004. Applicants' amendments to claims 1 and 5, and newly added claims 13-15 have all been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejections not maintained are withdrawn.

#### ***Specification***

4. The disclosure is objected to because of the following informalities:  
At page 6, second full paragraph, last two lines, the recitation "a separator 4 are formed on a peelable support" appears incorrect and inconsistent with Fig. 1 and Example 1, which teaches that the separator 4 is laminated to adhesive layer 32.  
Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1, 2, 5, 6, 8, 9 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 2-3, the recitation "the protective film comprises a protective layer and an adhesive layer formed on the support in this order" appears vague, indefinite and confusing, because while it is clear that the "protective film" is formed on the support, it is unclear which layer of the protective film is laminated to the surface of the support. The Examiner suggests a rewrite to clarify the structural relations among the layers. For this application, it is presumed that the protective layer is laminated to the surface of the support layer, as shown in Fig. 1.

Additionally, in claim 1, line 4, the phrase "heat-reactive resin" appears to be vague, indefinite and confusing, because it is unclear what is the scope of being "heat-reactive". Clarification and proper rewrite is requested. For this Office action, it is presumed that "heat-reactive resin" is a resin which has a heat-reactive functional group, such as a carboxy group, a hydroxy group, a tertiary amino group, an amide group, etc. (specification, page 12, bottom paragraph).

#### ***Response to Amendment***

7. Claims 1, 2, 5, 6, 8, 9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-132097 (English translation of relevant portions, submitted with IDS filed 2/3/04) either individually, or in view of Mori et al. (US 5051295), substantially for the reasons set forth in section 5 of Paper No. 0820, together with the following additional observations.

First, the Examiner notes that newly submitted JP '097 reference is directed to a transfer sheet comprising a releasing sheet (support), a cured resin layer of electron

beam (ionization radiation) curable resin and an adhesive layer consisting of an ionizing radiation curable resin formed on the releasing surface of the releasing sheet (claim 1 of JP '097). It should be noted that the cured resin layer clearly reads on the protective layer of the instantly claimed invention. JP '097 also teaches that the adhesive layer is cured after transferring by exposing to an ionizing irradiation (claim 3 of JP '097). JP '097 also expressly teaches that the suitable composition for the curable adhesive layer is the same as the curable resin used to form the cured resin layer (translation, page 2, last two lines). Further, JP '097 expressly teaches the EB curable resin as a mixture of one or more kinds of prepolymer and oligomer having an ethylene unsaturated bond in a monomer, a monomer having an ethylene unsaturated bond, etc. Examples of the prepolymer and oligomer include urethane acrylate, melamine (meth)acrylate, etc. Examples of monomer include methyl acrylate, 2-ethylhexyl acrylate, acrylamide, etc. (translation, page 2, top paragraph).

It is noted that newly amended claim 1 now recites *inter alia* "the adhesive layer contains ionizing radiation curable resin and a heat-reactive resin different from said ionizing radiation curable resin" and "wherein said heat-reactive resin is an acrylic copolymer of an acrylate or methacrylate monomer, as a first monomer, and a second monomer different from said first monomer and having a hydroxyl group, said heat-reactive resin having a weight average molecular weight of 50,000 – 2,000,000."

For newly amended claim 1 and newly added claims 13-15, JP '07 is silent about 1) the heat reactivity, 2) the heat-reactive resin is different from the ionizing radiation curable resin, and 3) the specific monomer ratio and molecular weight of the heat-

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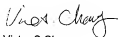
reactive resin. However, in light of the specification, which defines the "heat-reactive resin" as a resin comprising monomer unit which has a heat-reactive functional group, such as a carboxy group, a hydroxy group, a tertiary amino group, an amide group, etc., as set forth above, it is believed that the teachings of JP '097 clearly encompasses the heat-reactive resin as claimed, as monomers such as 2-ethylhexyl acrylate, acrylamide, etc., are conventional and well known for making the radiation curable resins taught by JP '097, as evidenced by Mori's teaching that especially preferred are copolymers of 2-hydroxyethyl (meth)acrylate (see Paper No. 0820, page 3). As to the heat-reactive resin being different from the ionizing radiation curable resin, the Examiner notes that since JP '097 teaches that the prepolymer, oligomer, and monomers can be mixed arbitrarily to prepare a coating composition having proper applicability (translation, page 2, second paragraph), JP '097 clearly anticipates the curable resin composition being a mixture of instantly claimed invention. Finally, the Examiner notes that although JP '097 is silent about the molecular weight of the curable resin, since JP '097 teaches essentially the same subject matter as the instant invention (a protective film transfer sheet), in the absence of unexpected results, a suitable molecular weight of the curable resin is believed to be either inherently disclosed by JP '097, or an obvious optimization to one skilled in the art, motivated by the desire to obtain a coating composition having proper applicability. It should be noted that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. See MPEP § 2112.01.

With respect to Applicants' argument that "Mori has no pressure-sensitive adhesive layer (or any layer which Mori characterizes or one skilled in the art would characterize as an adhesive layer) and therefore Mori's teachings cannot be suggestive of any modification of the adhesive layer of Japanese Kobai 63-132097 or of any other adhesive layer." (Remarks, page 6, second paragraph), the Examiner repeats that JP '097 expressly teaches that the suitable composition for the curable adhesive layer is the same as the curable resin used to form the cured resin layer, as set forth above. As such, clearly Mori's teachings are suitable for modifying the adhesive composition of JP '097, Applicants' argument to the contrary notwithstanding.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor S Chang  
Examiner  
Art Unit 1771

5/28/2004